

AMENDMENTS TO THE CLAIMS:

Please cancel claims 2-5 and 7 without prejudice or disclaimer, and amend claims 1 and 6.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A tin-containing plating bath comprising:

- (a) a soluble stannous salt, or
a mixture of a soluble stannous salt and at least one soluble salt selected from the group consisting of copper salts, bismuth salts, silver salts, indium salts, zinc salts, nickel salts, cobalt salts and antimony salts; and
- (b) at least one purified aliphatic sulfonic acid selected from the group consisting of alkanesulfonic acids and alkanolsulfonic acids,
~~the aliphatic sulfonic acid being a purified aliphatic sulfonic acid in which the total amount of a sulfur-containing compound or compounds having one or more sulfur atoms with an oxidation number of +4 or less in the molecule and a sulfur-containing compound or compounds having one or more sulfur atoms and one or more chlorine atoms in the molecule is a minute amount or less~~

wherein the purified aliphatic sulfonic acid is one obtained by purifying an aliphatic sulfonic acid which has been produced by hydrolyzing an alkylsulfonyl halide,

the content of dimethyldisulfide in the plating bath is less than 200 ppm,

U.S. Patent Application Serial No. 10/542,029

Amendment filed January 16, 2007

Reply to OA dated September 18, 2006

the content of S-methyl methanethiosulfonate in the plating bath is less than 4 ppm,
the content of α -chlorodimethylsulfone in the plating bath is less than 4 ppm, and
the content of α -methylsulfonyl- α,α -dichlorodimethylsulfone in the plating bath is less than
4 ppm.

Claims 2-5 (Canceled).

Claim 6 (Currently Amended). The tin-containing plating bath according to claim 1 wherein ~~the compounds having one or more sulfur atoms with an oxidation number of +4 or less in the molecule are dimethyldisulfide and S-methyl methanethiosulfonate, and the compounds having one or more sulfur atoms and one or more chlorine atoms in the molecule are α -chlorodimethylsulfone and α -methylsulfonyl- α,α -dichlorodimethylsulfone;~~

at least two sulfur-containing compounds selected from the group consisting of dimethyldisulfide, S-methyl methanethiosulfonate, α -chlorodimethylsulfone and α -methylsulfonyl- α,α -dichlorodimethylsulfone are present in the plating bath; and

the total content of the sulfur-containing compounds in the plating bath is less than 2 ppm.

Claim 7 (Canceled).

U.S. Patent Application Serial No. **10/542,029**
Amendment filed January 16, 2007
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Claim 8 (Original): The tin-containing plating bath according to claim 1 wherein the purified aliphatic sulfonic acid is one obtained by subjecting an aliphatic sulfonic acid to concentration under reduced pressure while heating.

Claim 9 (Original): The tin-containing plating bath according to claim 1 wherein the purified aliphatic sulfonic acid is one obtained by subjecting an aliphatic sulfonic acid to solid phase extraction in which the aliphatic sulfonic acid is brought into contact with an adsorbent.

Claim 10 (Original): The tin-containing plating bath according to claim 9 wherein the purified aliphatic sulfonic acid is one obtained by subjecting an aliphatic sulfonic acid to solid phase extraction at least twice, using the same or different kinds of adsorbents.

Claim 11 (Original): The tin-containing plating bath according to claim 1 wherein the purified aliphatic sulfonic acid is one obtained by subjecting an aliphatic sulfonic acid to a combination of concentration under reduced pressure and solid phase extraction.

Claim 12 (Original): The tin-containing plating bath according to claim 1 wherein the alkanesulfonic acid is methanesulfonic acid.

U.S. Patent Application Serial No. **10/542,029**
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Claim 13 (Original): A bump-forming method comprising forming a bump with the use of the plating bath of claim 1.